

Claims

1. Image encoding method for transforming an image into a data bit sequence under resolution into a plurality of pixels individually numbered or provided with pixel coordinates, to which corresponds in each case a luminance value and/or chrominance value from a plurality of predetermined luminance values and/or chrominance values, characterized in that each of the luminance values and/or chrominance values occurring in the image, are allocated the numbers or pixel coordinates of the pixels having said luminance value and/or chrominance value.

15 2. Image encoding method according to claim 1, characterized in that in a first step, the image is examined as to which of the predetermined plurality of luminance values and/or chrominance values occurs in the image, and in a second step, each of the detected luminance values and/or chrominance values are allocated the numbers or pixel coordinates of the pixels having said luminance value and/or chrominance value.

25 3. Image encoding method according to claim 1, characterized by the realization as processing of a primary data bit sequence for obtaining a secondary, in particular compressed or reduced data bit sequence, luminance values and/or chrominance values having no pixel allocated being not encoded in the secondary data bit sequence.

4. Image encoding method according to claim 3,
characterized in that
the pixels are allocated pixel coordinates as value pairs
of Cartesian coordinates or polar coordinates, and the
pixel coordinates are indicated in the secondary data bit
sequence as value pairs, whereas the luminance values
and/or chrominance values with which the pixels are
associated, are encoded as individual numerical values.

10 5. Image encoding method according to claim 1,
characterized in that
the pixels allocated to the occurring luminance values
and/or chrominance values are indicated in a predetermined
order of the luminance values and/or chrominance values,
the pixels allocated to a determined luminance value
and/or chrominance value being in each case preceded by a
value characterizing the distance to the preceding
luminance value and/or chrominance value.

15 20 6. Image encoding method according to claim 1,
characterized in that
for data reduction, those luminance values and/or
chrominance values having a number of pixels allocated
falling below a determined threshold value, are not
encoded.

25 7. Image encoding method according to claim 6,
characterized in that
those pixels, the luminance values and/or chrominance
values of which are not encoded, are allocated to the next
30 adjacent luminance value and/or chrominance value.

8. Image encoding method according to claim 6,
characterized in that
particularly relevant parts of an image are predetermined,
in which the non-encoding of those luminance values and/or
5 chrominance values is suppressed, which have a number of
pixels allocated falling below a determined threshold
value.

9. Image encoding method according to claim 1,
10 characterized in that
the image is subdivided into partial images in a
predetermined order, in which partial images the pixels
are in each case separately numbered or provided with
pixel coordinates.

15 10. Image encoder for realizing the image encoding method
according to claim 1,
characterized by
a pixel allocation means for allocating pixels having a
20 predefined luminance value and/or chrominance value to the
corresponding luminance value and/or chrominance value.

25 11. Image encoder according to claim 10,
characterized by
a luminance value/chrominance value detection means
connected to an input of the pixel allocation means for
examining, in particular in a scanning manner, the image
for the occurring luminance values and/or chrominance
values.

30 12. Image encoder according to claim 10,
characterized by
a digital input for receiving a primary data bit sequence,
and a digital output for outputting a secondary, in
35 particular compressed or reduced data bit sequence.

13. Image encoder according to claim 10,
characterized by
a luminance/chrominance threshold value discriminator and
a counter means connected to the output of the pixel
5 allocation means for counting the pixels allocated to the
individually occurring luminance values and/or chrominance
values, which counter means is connected to the input of
the luminance/chrominance threshold value discriminator,
the luminance(chrominance threshold value discriminator
10 and the counter means cooperating in such a manner that
luminance values and/or chrominance values having a number
of pixels allocated falling below a predetermined
threshold value, are not encoded and are not outputted.

15 14. Image encoder according to claim 13,
characterized by
an adjacent value allocation means connected to the
luminance/chrominance threshold value discriminator for
allocating to the next adjacent luminance and/or
20 chrominance value those pixels, the luminance values
and/or chrominance values of which are not encoded due to
falling below the threshold value.

15. Image encoder according to claim 10,
25 characterized by
an image dividing means for determining restricted,
particularly relevant parts of an image and/or for
subdividing the image into partial images, in which the
pixels are in each case separately numbered or provided
30 with pixel coordinates in a determined order.